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Morphometric Predictors of Mortality in Vascular Surgical Patients

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We congratulate Waduud et al (2019)(1) on their comprehensive manuscript, describing the influence of total psoas muscle area (TPMA) on mortality following elective abdominal aortic aneurysm (AAA) repair and were struck by the similarity between the authors' findings and those of our own group(2). Similar to Waduud et al, we found that TPMA is a poor indicator for of mortality in general vascular surgery patients.

This adds to an increasing volume of work showing that TPMA is a poor predictor of mortality in Vascular patients: Indrakusuma et al (2017)(3) looked at TPMA as a prognostic factor for survival in patients with an AAA and concluded there was no association between TPMA and survival, regardless of management strategy. Shah et al (2017)(4) found that TPMA affected length of hospital stay post-operatively, but similarly found no correlation between TPMA and mortality. Interestingly, Swanson et al (2015)(5) found that TPMA correlated poorly to the frailty of patients with peripheral arterial disease, perhaps explaining why this seemingly promising marker fails to accurately predict outcome.

Our group also examined decreased subcutaneous fat depth (SFD), finding this to be significantly associated with increased mortality, readmission within 12 months and increased healthcare costs, even after adjustment for confounders. We would argue that it is time to abandon TPMA as a putative predictor and move to more promising morphometric markers such as SFD. We would be interested to discover whether Waduud et al had explored the predictive role of other morphometric markers in their large cohort of patients.

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